Docket No.: 595792000300

Application No.: 10/617,624 Response to OA of 9/28/05

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

CLAIMS

Claim 1 (Currently Amended) A non-naturally occurring non-halophyte-transgenic oil crop plant comprising seeds containing oil wherein said oil has a with normal or near normal composition of fatty acids distribution, wherein said plant expresses a recombinant plant-derived NHX-type transporter protein when cultivated in high salt under a salt concentration that causes at least a relative seed yield decrease of 25 percent in a plant lacking said recombinant plant-derived NHX-type transporter protein wherein said fatty acids each comprise greater than 5% of the total fatty acids in said oil.

Claims 2-8 (Canceled).

Claim 9 (Currently Amended) The non-naturally occurring non-halophyte transgenic oil crop plant of claim 1 wherein the transgenic plant is selected from the group consisting of canola, safflower, palm, coconut, cotton, flax, olive, jojoba, peanut, castor, sesame, sunflower and soybean.

Claim 10 (Currently Amended) The non-naturally occurring non-halophyte transgenic oil crop plant of claim 1 wherein the transgenic plant is canola.

Claim 11 (Currently Amended) The non-naturally occurring non-halophyte transgenic oil crop plant of claim 1 wherein the transgenic plant is safflower.

Claim 12 (Canceled)

Claim 13 (Canceled)

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Claim 14 (Cancelled)

Claim 15 (Cancelled)

Claim 16 (Cancelled)

Claim 17 (Currently Amended) The non-naturally occurring non-halophyte-transgenic oil crop plant of claim 16 1 wherein the first nucleic acid recombinant plant-derived NHX-type transporter protein is encoded by a nucleic acid molecule selected from the group consisting of the following:

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- (a) a nucleic acid molecule of the coding strand shown in comprising SEQ ID NO:1, or a complement thereof;
- (b) a nucleic acid molecule encoding the same amino acid sequence as encoded by the nucleotide sequence of (a);
- (c)—a nucleic acid molecule that hybridizes to the sequence set forth in SEQ-ID NO:1 or the complement of the sequence set-forth in SEQ-ID NO:1 under highly stringent conditions that include at least one wash in 0.1x SSC, 0.1% SDS, at 65° C for thirty minutes; and
- (d)—a nucleic acid molecule encoding a plant NHX transporter polypeptide that hybridizes to the sequence set forth in SEQ ID NO:1 or the complement of the sequence set forth in SEQ ID NO:1 under moderately stringent conditions that includes at least one wash in 0.1x SSC, 0.1% SDS, at 50° C for thirty minutes. and
 - (c) a nucleic acid molecule with 95% sequence identity to SEQ ID NO:1.

Claim 18 (Currently Amended) The non-naturally occurring non-halophyte oil crop transgenic plant of claim 17 wherein the transgene nucleic acid encoding the recombinant plant-derived NHX-type transporter protein further comprises a second nucleic acid promoter operably linked to the first nucleic acid wherein the second nucleic acid comprises a plant promoter.

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Claim 19 (Currently Amended) The non-naturally occurring non-halophyte oil crop transgenic plant of claim 18 wherein the promoter is the CaMV promoter.

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Claim 20 (Currently Amended) The non-naturally occurring non-halophyte oil crop. transgenic plant of claim 19 wherein the plant is canola.

Claim 21 (Currently Amended) A transgenic non-halophyte seed produced from the plant of claim 1.

Claim 22 (New) A transgenic oil crop plant that expresses a recombinant plant-derived NHX-type transporter protein and produces seed with normal or near normal seed oil content when said plant is cultivated under a salt concentration that causes at least a relative seed yield decrease of 25 percent in a plant lacking said recombinant plant-derived NHX-type transporter protein.

Claim 23 (New) The transgenic oil crop plant of claim 22 wherein the transgenic plant is selected from the group consisting of canola, safflower, palm, coconut, cotton, flax, olive, jojoba, peanut, castor, sesame, sunflower and soybean.

Claim 24 (New) The transgenic oil crop plant of claim 23 wherein the transgenic plant is canola.

Claim 25 (New) The transgenic oil crop plant of claim 23 wherein the transgenic plant is safflower.

Claim 26 (New) The transgenic oil crop plant of claim 22 wherein the recombinant plantderived NHX-type transporter protein is encoded by a nucleic acid molecule selected from the group consisting of:

- a nucleic acid molecule comprising SEQ ID NO:1, (a)
- a nucleic acid molecule encoding the same amino acid sequence encoded by the (b) nucleotide sequence of (a); and

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(c) a nucleic acid molecule with 95% sequence identity to SEQ ID NO:1.

Claim 27 (New) The transgenic plant of claim 26 wherein the nucleic acid encoding the recombinant plant-derived NHX-type transporter protein further comprises a promoter operably linked to the nucleic acid.

Claim 28 (New) The transgenic plant of claim 27 wherein the promoter is the CaMV promoter.

Claim 29 (New) The transgenic plant of claim 28 wherein the plant is canola.

Claim 30 (New) A transgenic seed produced from the plant of claim 22.